

REMARKS

1. The Amendments and the Support Therefor

No claims have been canceled, three new claims (43-45) have been added, and no claims have been amended to leave claims 1-21, 23-26, 28, and 35-45 in the application. Payment for any newly-submitted claims in excess of the amount previously paid for should accompany this Response, as per 37 CFR §1.16(b)-(d), with the fee due being calculated as follows:

FEE CALCULATION

For	Already Paid	No. Extra	Rate (SMALL ENTITY)	Fee (SMALL ENTITY)
Total Claims	37 - 34 =	3	x \$26 =	\$78
Independent Claims	8 - 5 =	3	x \$110 =	\$330
Total:				\$408

No new matter has been added by the amendments or new claims, wherein new independent claims 43-44 find support in the previously-submitted independent claims 1, 28, 35, 37, and 42 (also see claim 1 as originally submitted).

2. Rejection of Claims 1-12, 14-21, 23, 28 and 35-41 under 35 USC §103(a) in view of U.S. Patent 5,959,549 to Synesiou et al.

U.S. Patent 5,959,549 to *Synesiou et al.* is directed to an improved Electricity Dispensing Unit (EDU) system, wherein an EDU allows a consumer to prepay for power at a site, and then cuts power to the site when the paid amount is consumed (column 1 lines 6-25). Referring to FIG. 1, a power provider – whose payment processing facilities (“Vending Depot,” “Treasury Dept.,” “Master Control”) are illustrated at the top of the Figure – communicates via radio with “concentrators” 32 receiving power from mains cable 36 (column 3 lines 41-55). Communal metering controllers (“CMCs”) 34 – which are effectively electricity substations which subdistribute electricity from the mains cable 36 – communicate with the concentrator 32 over the mains cable 36, thereby in turn allowing the substations / CMCs 34 to communicate with the power provider via the radio link of the concentrator 32 (column 3 lines 41-50).

Each substation / CMC 34, shown in greater detail in FIG. 2, contains several remote measurement modules (meters) 38, shown in greater detail in FIG. 3 (column 3 lines 57-63). Each meter / remote

measurement module 38 controls power supply to a particular site to which it is assigned (column 3 lines 57-63). Looking to FIG. 3, in each meter / remote measurement module 38, a transformer 58 measures the amount of power consumed at the meter / module 38's site. The power consumption data is passed to the substation / CMC 34 of FIG. 2 via the meter / module 38's interface 70 (column 4 lines 4-24). Referring to column 4 lines 33-49, the meter / remote measurement module 38 also includes a controller 68 (FIG. 3) storing a variety of data (column 4 lines 33-53), including "a unique identification number and a module address code, allowing the consumption data derived from a particular consumer site to be related to that site and to the credit data corresponding thereto" (column 4 lines 49-53). The controller 40 (FIG. 2) of the substation / CMC 34 then receives the consumption data and meter ID for each of its meters / modules 38 versus each meter / module 38's credit, and when the credit stored by the substation / CMC 34 is exhausted, the substation / CMC 34 signals the controller 68 (FIG. 3) of the meter / module 38 to have its contactor 60 cut power (column 4 line 54 onward).

A display unit 73 (FIG. 4) is also provided at each consumer site, and it allows consumers to communicate with the power provider, e.g., to send in credit card data and purchase power (column 5 lines 15-65). However, the display unit 73 is not part of the site's meter / remote measurement module 38, nor does it directly communicate with the meter / remote measurement module 38. Rather, the display unit 73 has "a microprocessor controller 74 connected to a mains modem 76 which is arranged to be plugged into the mains electrical supply at the consumer site and which allows communication between the remote display unit and the communal metering controller 34 which controls the supply of electricity to that consumer site, via the mains modem 42" (column 5 lines 18-24). Or, as stated at column 6 lines 40-43, "[t]he remote display unit can be installed anywhere at the consumer site, since it has no direct physical link to the communal metering controller 34, but communicates instead via the mains supply into which it is plugged."

When reviewing the independent claims, the Office Action misinterprets the scope and content of *Synesiou* in several respects:

- At page 2, the Office Action states that *Synesiou*'s utility meter (remote measurement module 38) is arranged to "communicate with the user interface unit (display unit), to obtain a card charge

authorization (C. 5, L. 55-57)". Similar statements are made at page 4 with respect to independent claims 28 and 35. However, as reviewed above and as noted at column 5 lines 18-24, column 5 lines 48-65, and column 6 lines 31-43, *Synesiou's* utility meter (remote measurement module 38) and user interface unit (display unit 73) do not in fact communicate. Rather, if a consumer wishes to increase his/her stored credit (i.e, purchased power), credit card data may be entered at the user interface unit (display unit 73) (column 5 lines 48-65), and the data is transmitted over the power line to the substation / CMC 34 (column 5 lines 18-24 and column 6 lines 31-43), which can in turn transmit the data to the power provider.

- At page 2, with respect to claims 1, 37, and 42, the Office Action states that *Synesiou's* utility meter (remote measurement module 38) is arranged to "transmit [a] card charge request to a financial institution based on the card charge authorization (C. 5, L. 52-57) and a meter location identifier (the utility meter unique identification number and module address code allow[ing] the consumption data derived from a particular consumer site to be related to that site and to the credit data corresponding to that site) (C. 4, L. 49-53)". Similar statements are made at page 4 with respect to independent claims 28 and 35. However:
 - *Synesiou's* utility meter (remote measurement module 38) does not transmit any such card charge data; as discussed above, only *Synesiou's* user interface unit (display unit 73) transmits card charge data to the power provider. More specifically, the user interface unit / display unit 73 transmits the card number, the PIN noted at column 5 lines 52-57 (which serves to identify the consumer, and thus the location to be powered), and the amount to be charged/credited.
 - *Synesiou* also does not transmit the card charge request to a financial institution based on the meter location identifier of column 4 lines 49-53 (and column 4 lines 35-36). This meter ID is only used with / communicated to the substation / CMC 34; see column 4 line 54 onward. As noted above, only the user interface unit / display unit 73 transmits card charge request data to a financial institution (power provider), and the transmitted data is the card number, PIN, and amount – *not* the meter location identifier.

- At page 3, with respect to claims 1, 37, and 42, the Office Action states that *Synesiou*'s card charge request includes "data verifying that the credit/charge card corresponding to the credit/charge card account is physically present at the location of the user interface unit (a secret code or PIN allocated to the consumer) (C. 5, L. 53-54)". Similar statements are made at page 3 with respect to independent claims 28 and 35. However, the code/PIN discussed at column 5 lines 52-57 does not verify that a credit/charge card is present – this is simply a PIN "allocated to the consumer" by the power provider to identify the consumer, and thus identify the meter/site to be powered (i.e., the PIN-bearing consumer's meter/site). See column 5 lines 53-58. Neither the PIN nor the credit card number are data verifying that the credit/charge card is present. Card presence has ramifications: as is well-accepted in this field, "card-present" transactions are far less likely to be fraudulent because the one making the charge actually has possession of the card. In *Synesiou*, someone could acquire a credit card number other than their own, and enter it with their PIN at their or any other user interface unit (display unit 73) to pay for power at their utility meter (remote measurement module 38).

Several of the factual predicates for the conclusion of obviousness are thus incorrect. Turning then to the Office Action's legal conclusion of obviousness, the Office Action states (at page 3):

Synesiou et al. does not specifically teach that the financial institution processes the card charge request from the utility meter regardless of whether the card charge request relates to any utility usage measurements made by the utility meter.

Official notice is taken that it is old and well known to use credit cards for paying for various goods or services instead of using checks or money orders.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify *Synesiou et al.* to include that the financial institution processes the card charge request from the utility meter regardless of whether the card charge request relates to any utility usage measurements made by the utility meter for the benefit of convenience.

This is simply not so. The matter that is the subject of Official Notice is undisputed – it is indeed true that credit cards are used to pay for a wide variety of goods and services. However, it cannot fairly be said that one of ordinary skill, who had no knowledge of the claimed invention, would ever contemplate using *Synesiou et al.* for paying for anything apart from utility usage. The Office Action states that one of

ordinary skill would do so “for the benefit of convenience,” but consider: if *Synesiou* is objectively considered for all that it teaches, with the claimed invention out of mind (so that hindsight is avoided), *what would one be paying for with Synesiou except for utility service?* Also, how would this arrangement truly be convenient? Typical credit card payments are transmitted via telephone (modem) or other telecom lines. Here, if one was to pay for matter other than utility service, how is it really convenient to transmit a charge authorization via transmission over a power line, and then over radio, to a utility provider (who would then need to serve as a “middleman” handling financial arrangements for the provider of the non-utility matter)? Put differently, if you were a merchant, would you regard this as convenient, or even feasible (as compared with conventional telecom transmission of charge authorizations)? With all respect, when the rationale for the rejection is objectively considered, it is simply unconvincing: it’s far easier to simply pay by phone or internet, as is traditional.

Stepping back, it is important to note that the focus of the claimed invention is not payment for utility services – rather, it is on screening for card transactions that are more likely to be fraudulent, regardless of whatever goods and services are being purchased. It is well known to pay for goods and services remotely by providing a credit card number; one need not have the card for this, one merely needs the card number. As a result, there is a large criminal market for credit card numbers. Further, card-not-present transactions are given a less trusted status than card-present transactions, and are not accepted by some merchants (and are also often charged higher transaction fees). This is owing to the aforementioned reason that when the charging party actually has the card, there is a greater likelihood that the card actually belongs to the party (and thus that the transaction is not fraudulent). When a card number is provided from a remote / unknown site, there is simply no guarantee that the charging party has the card in their possession, or that the charging party is truly the card’s holder. The claimed invention remedies this, at least in part, because tying the card number (and card presence data, e.g., the 3-digit code on the card signature strip¹)

¹ This code is variously referred to in the industry as the Card Security Code (CSC), Card Verification Value (CVV), Card Verification Code (CVC), Card Code Verification (CCV), Verification Code (V-Code), and similar names. It is noted that the USPTO’s own EFS-Web online filing system requests such codes if charge cards are used to pay USPTO fees online.

to the identification (and thus the location) of a utility meter helps to give a guarantee of the charger's location (and the card's location). It can therefore be seen whether a charge originates from a "safe" location – e.g., the authorized user's home, or some distance therefrom – rather than an unsafe one, e.g., a far-off location at which the authorized user is unlikely to be.

Synesiou does not contemplate such an arrangement – the power provider has no idea where a charge request originates – and it cannot fairly be said that an ordinary artisan who has no knowledge of the claimed invention would contemplate the claimed arrangement after review of *Synesiou*. Kindly withdraw the rejections of independent claims 1, 28, 35, 37, and 42, and thus of their dependent claims (particularly claims 38-41, which are clearly unobvious for the reasons noted above).

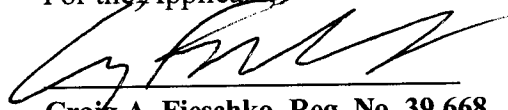
3. New Claims 43-45

New claims 43-45 are submitted to be allowable for at least the reasons noted above: the known prior art simply does not show or suggest the use of a utility meter identifier in a credit/charge card funds authorization to verify the location of the funds authorization, or that the card is present at that location.

4. In Closing

If any questions regarding the application arise, please contact the undersigned attorney. Telephone calls related to this application are welcomed and encouraged. The Commissioner is authorized to charge any fees or credit any overpayments relating to this application to deposit account number 18-2055.

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